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Awalt

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(54) **PRODUCE DISPLAY STAND**

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A47J 47/00	(2006.01)
A47F 7/00	(2006.01)

(52) **U.S. Cl.**

CPC ***A47F 7/0071*** (2013.01)
USPC **211/85.4**; 211/126.1

(58) **Field of Classification Search**

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USPC 211/85.4, 59.4, 126.1, 183, 134, 153, 211/135, 72, 73, 133.6; 312/126, 128; 206/561, 557; 220/507, 553, 557
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

62,368	A *	2/1867	Salmon	211/70.6
710,093	A *	9/1902	Brand	206/561
1,646,573	A *	10/1927	Buzza	40/534
1,917,735	A *	7/1933	Roberts	211/85.12
1,973,194	A *	9/1934	Allan	206/521.3
2,010,437	A *	8/1935	Nuyts	206/521.6
2,722,719	A *	11/1955	Altstadter	264/155
3,233,744	A *	2/1966	Ripps	211/119.009
3,407,939	A *	10/1968	Villar-Kelly	211/90.01
3,790,063	A *	2/1974	Moller	206/521.9
3,850,296	A *	11/1974	Hirata et al.	206/711
3,939,987	A *	2/1976	Bustos et al.	211/134
D303,218	S *	9/1989	Long, Jr.	D9/456
5,381,896	A *	1/1995	Simons	206/370
5,640,821	A *	6/1997	Koch	52/698
5,641,061	A *	6/1997	de Muylder-Braun	206/6.1
5,680,929	A *	10/1997	Von Seidel	206/77.1
D453,995	S *	3/2002	Slight	D3/304
6,648,154	B2	11/2003	Awalt	
6,872,338	B2	3/2005	Awalt	
7,128,000	B2 *	10/2006	Mummert	108/92
7,249,746	B2	7/2007	Awalt	
7,533,770	B2 *	5/2009	Lan	206/308.1
8,162,156	B1 *	4/2012	Crisman	211/85.6
2007/0272630	A1 *	11/2007	De Luca	211/11
2008/0121563	A1 *	5/2008	Polvere et al.	206/763

* cited by examiner

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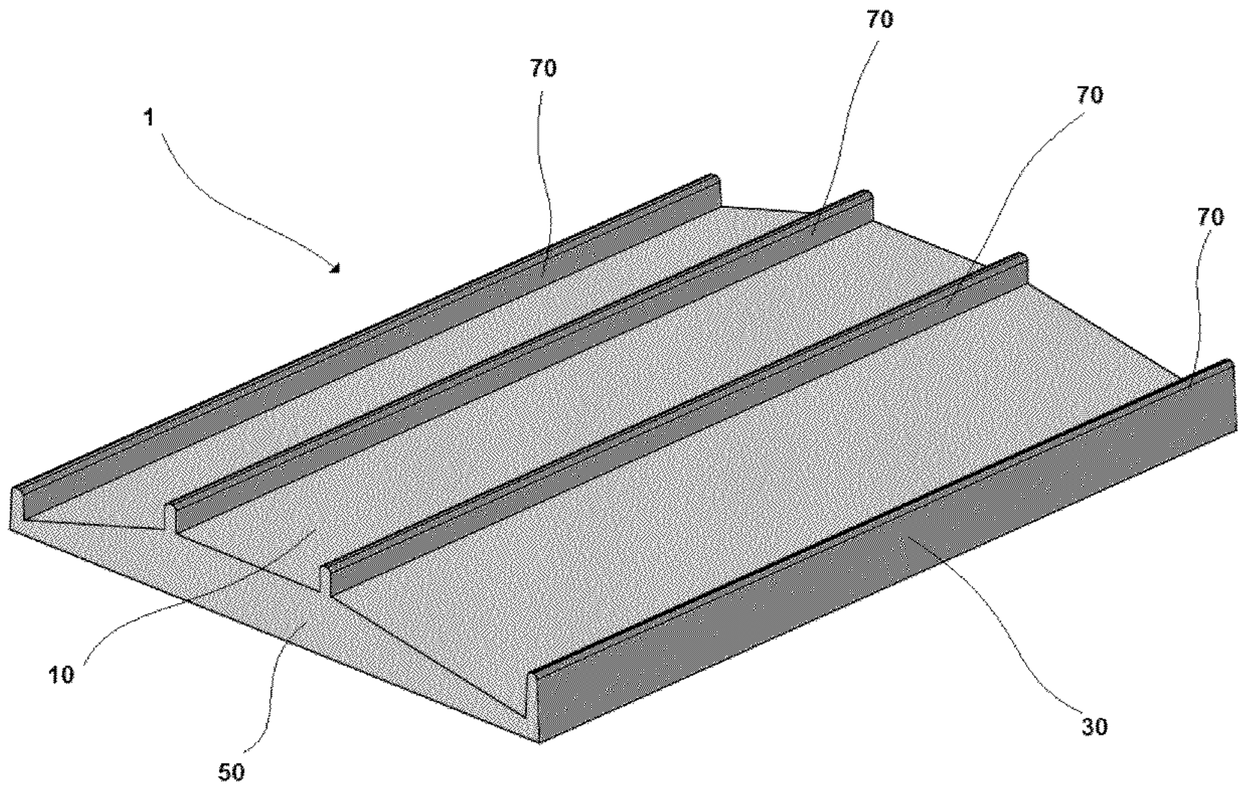
(57) **ABSTRACT**

A monolithic display stand for the point-of-sale display of produce manufactured out of a closed cell foam material and of solid construction, with a raised central region and vertically oriented divider panels. The display stand is used in a retail setting by first being placed onto a table or other means of support, and then having produce placed onto the top surface, among and between the divider panels. The divider panels hold the produce onto the device, with the raised central region providing a visually pleasing support for the produce, while the foam construction of the stand protects the produce from damage.

6 Claims, 6 Drawing Sheets



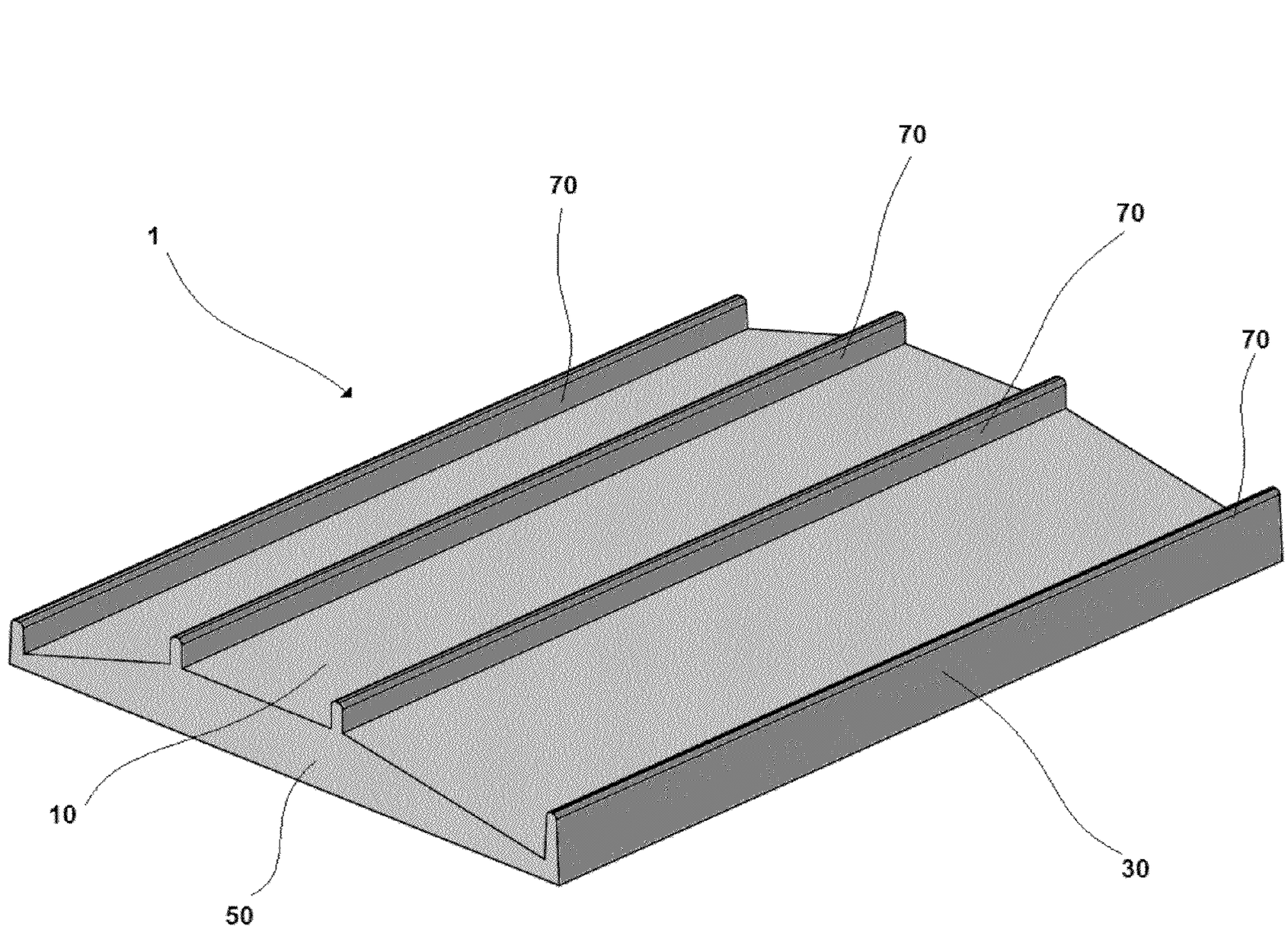


Fig. 1

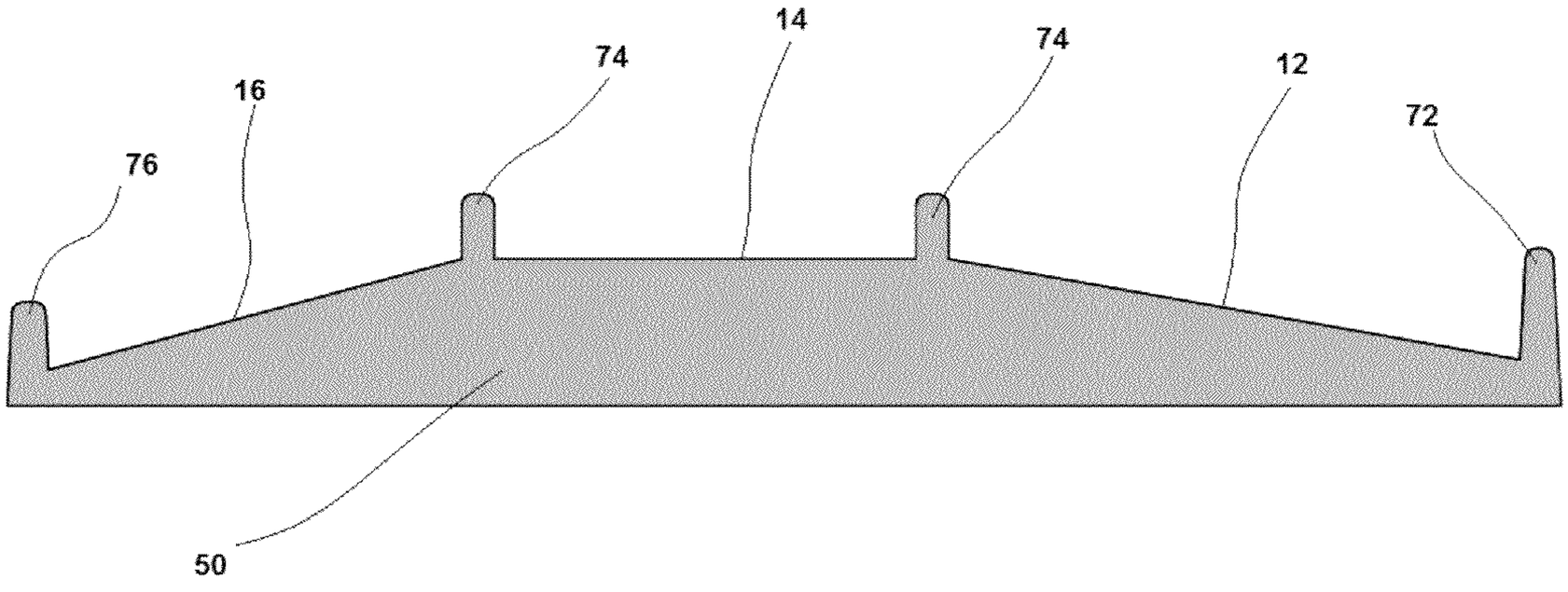


Fig. 2

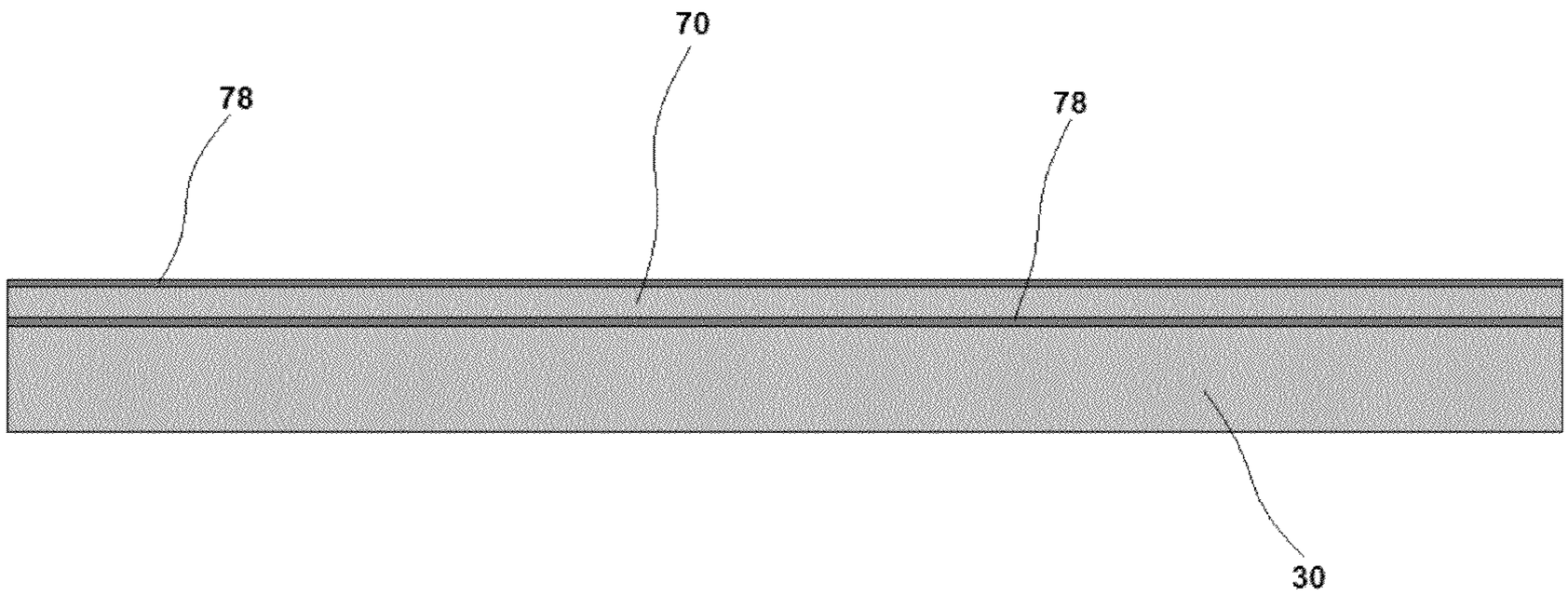


Fig. 3

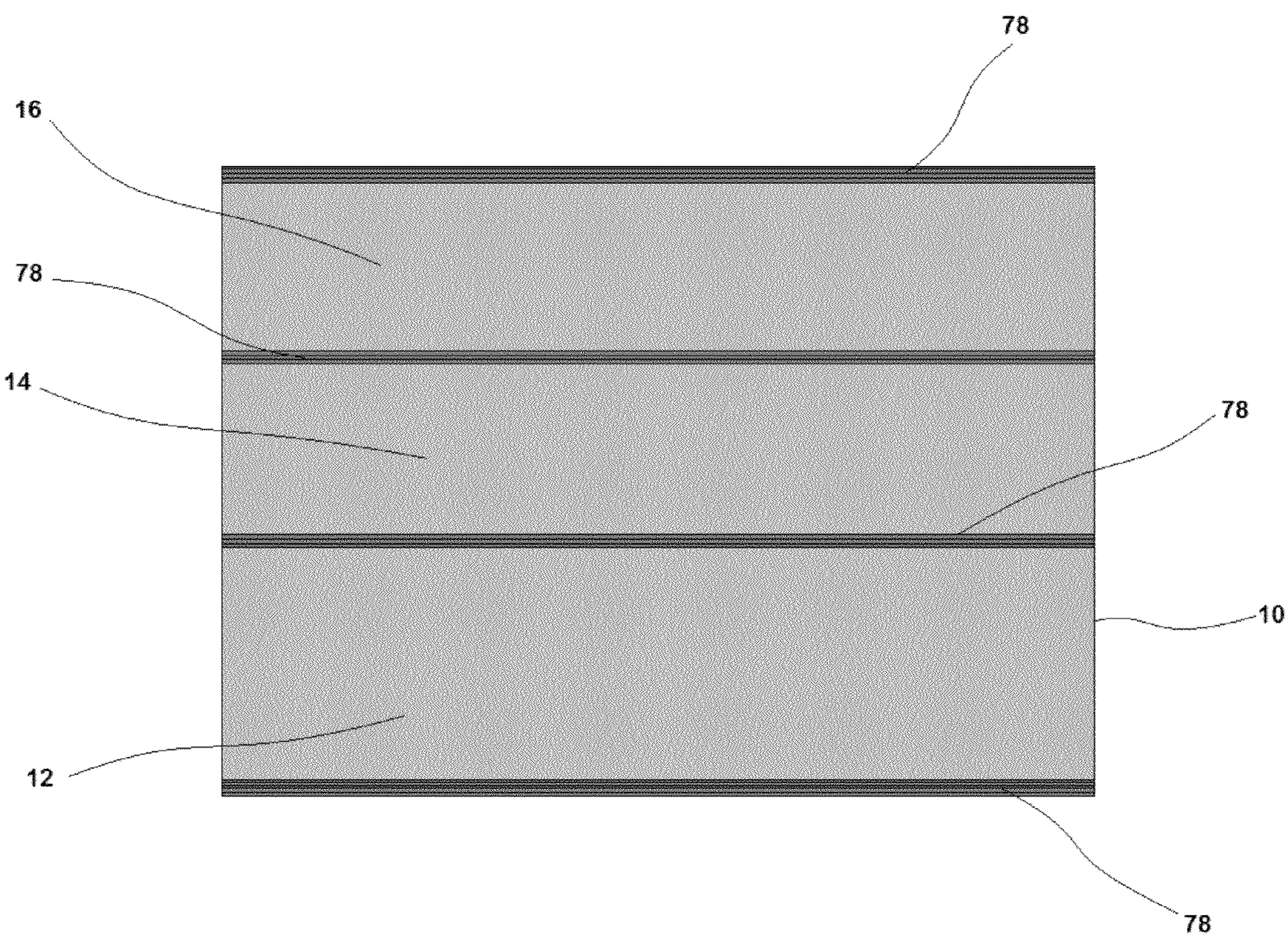


Fig. 4

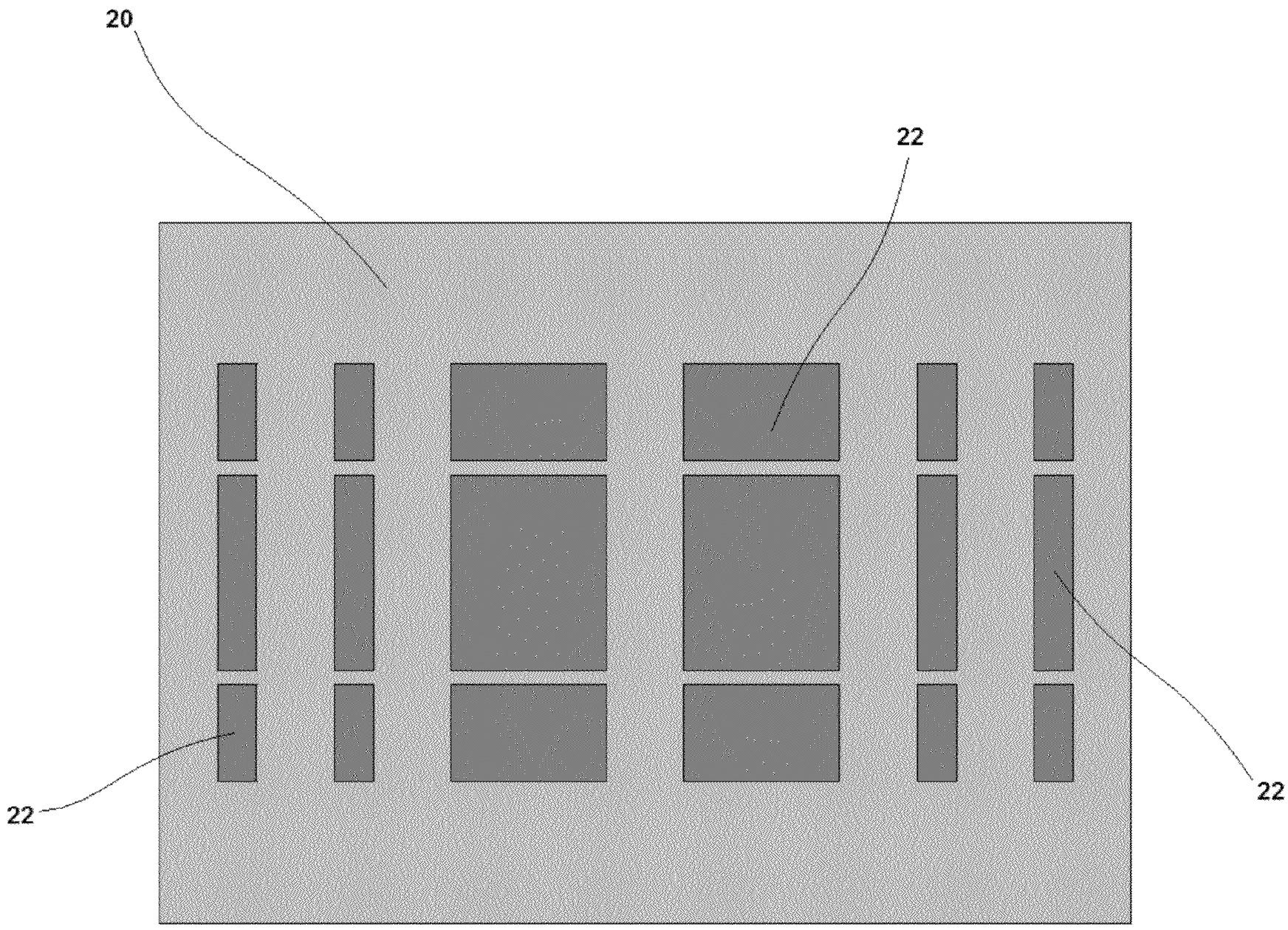


Fig. 5

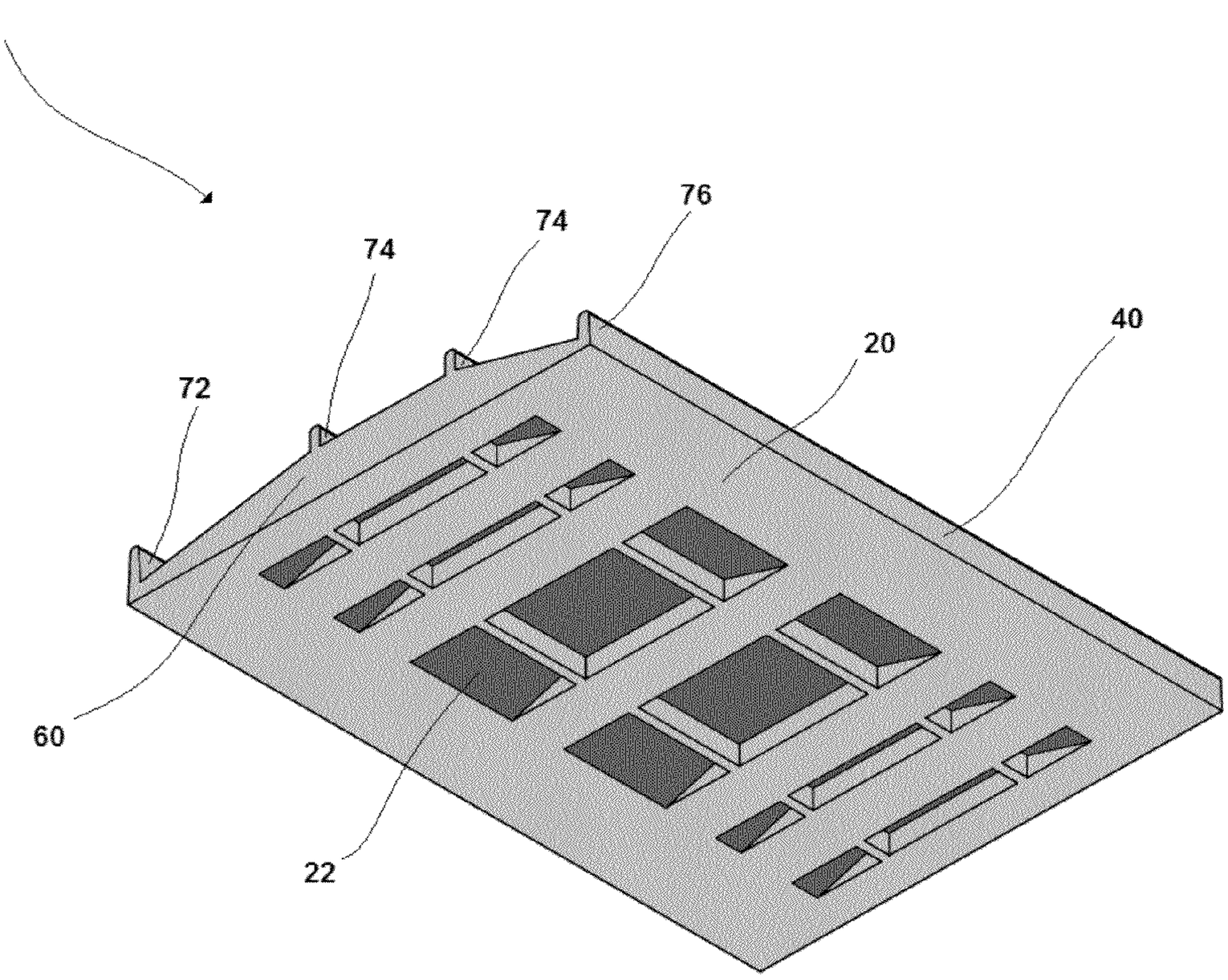


Fig. 6

PRODUCE DISPLAY STAND

BACKGROUND OF THE INVENTION

1. Technical Field

The present invention relates generally to retail display devices for the point-of-sale display of produce and, more particularly, to a produce display stand constructed out of closed cell foam to support and protect produce while creating an aesthetically pleasing display.

2. Description of Prior Art

Produce display stands are well known in the industry. Conventional display stands are constructed of multiple components involving a labor-intensive manufacturing process. In addition, because of the multiple components, seams, joints, gaps, and other structures are of necessity utilized, providing access points to water, mold, and bacteria, which can damage the produce. The device claimed herein seeks to reduce these deficiencies.

It is therefore an objective of the present invention to provide a produce display stand that is monolithic in construction.

It is a further objective of the present invention to provide a produce display stand that does not contain seams, joints, or gaps.

It is yet a further objective of the present invention to provide a produce display stand that is impervious to water, mold, and bacteria.

It is yet a further objective of the present invention to provide a produce display stand that protects the produce placed thereon from bruising.

It is yet a further objective of the present invention to provide a produce display stand that displays the produce placed thereon in an aesthetically pleasing manner.

It is yet a further objective of the present invention to provide a produce display stand that is simple to manufacture.

It is yet a further objective of the present invention to provide a produce display stand that is light weight and easy to ship.

Other objectives of the present invention will be readily apparent from the description that follows.

SUMMARY OF THE INVENTION

In one aspect, the invention is directed to a device for displaying produce, comprising a monolithic display member constructed of a closed cell foam material, such as closed cell pvc foam, with the top surface being upwardly inclined from front to center and from rear to center, producing a substantially convex top surface onto which produce is placed. Placed across the top surface are vertically oriented divider panels, each panel extending laterally from side to side. The panels serve to retain the produce onto the top surface of the display device while also providing for retention means for keeping produce dispersed among a front region, one or more central regions, and a rear region of the top surface of the display device.

This aspect may include one or more of the following features: the display member has two or more divider panels; the display member has four divider panels; the divider panels are oriented substantially parallel to each other; each divider panel is substantially the same width as each other divider panel; each divider panel is substantially the same thickness as each other divider panel; each divider panel extends from the left edge of the display member to the right edge of the display member; one divider panel is located substantially along the front edge of the display member, one panel is located substantially along the rear edge of the display member, and the remaining panels are located between the first two divider panels and spaced apart from them and from each other; the section of the top surface of the display member located between the front adjacent pair of divider panels is larger in area than the section of the top surface of the display member located between the rear adjacent pair of divider panels; the section of the top surface of the display member located between the front adjacent pair of divider panels is larger in area than all other sections of the top surface of the display member located between all other adjacent pairs of divider panels; each section of the top surface of the display member located between each adjacent pair of divider panels is substantially planar; each section of the top surface of the display member located between each adjacent pair of divider panels is curved smoothly upward; the top edge of each divider panel is rounded; the left and right sides of the display member are substantially parallel; the front and rear sides of the display member are substantially parallel; each lateral side of the display member is substantially perpendicular to each other lateral side to which it is adjacent; and the display member has a width of between forty inches and fifty inches, a depth of between forty inches and fifty-five inches, and a height of between four inches and six inches.

Other features and advantages of the invention are described below.

DESCRIPTION OF THE DRAWINGS

FIG. **1** is a perspective top view of the display member.

FIG. **2** is a plan side view of the display member depicted in FIG. **1**. The opposite plan side view of the display member is substantially identical to FIG. **2**.

FIG. **3** is a plan front view of the display member depicted in FIG. **1**. The plan rear view of the display member is substantially identical to FIG. **3**.

FIG. **4** is a plan top view of the display member depicted in FIG. **1**.

FIG. **5** is a plan bottom view of the display member depicted in FIG. **1**.

FIG. **6** is a perspective bottom view of the display member depicted in FIG. **1**.

DETAILED DESCRIPTION OF INVENTION

FIG. **1** shows a perspective view of one embodiment of a produce display stand **1**. In this embodiment, the produce display stand **1** is a monolithic, flexible display member constructed entirely of a foam material, and having a top surface **10**, a bottom surface **20**, a front surface **30**, a rear surface **40**, a left surface **50**, a right surface **60**, and two or more divider panels **70**. See FIGS. **1** and **6**. Produce is placed onto the top surface **10** between and among the divider panels **70**. The divider panels **70** hold the produce in place, thereby reducing the possibility that the produce will roll or slide off the produce display stand **1**, while still allowing the produce to be visible and easily accessible. The produce display stand **1** is manufactured using a foam material. The foam may be open celled or closed celled. In the preferred embodiment the foam is closed cell, such as closed cell pvc foam. The foam construction cushions the produce and reduces bruising or other damage. Due to its foam construction, the produce display stand **1** is light weight, flexible, and fully immersible in water for easy cleaning and storage.

The top surface **10** of the produce display stand **1** has a central region **14**. See FIG. **4**. The central region **14** is located between the front surface **30** and the rear surface **40**. The top

surface **10** is upwardly inclined from the front surface **30** towards the central region **14** of the top surface **10** and is upwardly inclined from the rear surface **40** towards the central region **14** of the top surface **10**. See FIG. **2**. As such, the produce display stand **1** has an elevated central region **14**. This allows for a more full display of produce when produce is placed onto the top surface **10** of the produce display stand **1**.

The bottom surface **20**, the front surface **30**, the rear surface **40**, the left surface **50**, and the right surface **60** are all substantially planar. See FIGS. **2**, **3**, **5**, and **6**. The top surface **10** is adjacent to the front surface **30**, rear surface **40**, left surface **50**, and right surface **60**. The bottom surface **20** is likewise adjacent to the front surface **30**, rear surface **40**, left surface **50**, and right surface **60**. The front surface **30** is further adjacent to the left surface **50** and the right surface **60**. Similarly, the rear surface **40** is also adjacent to the left surface **50** and the right surface **60**. In some embodiments, the front surface **30** is substantially parallel to the rear surface **40**, and in other embodiments left surface **50** is substantially parallel to the right surface **60**.

In some embodiments the front surface **30**, rear surface **40**, left surface **50**, and right surface **60** may be oriented with respect to each other at angles other than right angles, thereby forming a produce display device **1** having an non-rectangular base shape. This allows for the produce display stand **1** to have a trapezoidal, rhomboidal, or irregular polygonal shape. In the preferred embodiments, however, the front surface **30** is substantially perpendicular to the left surface **50** and substantially perpendicular to the right surface **60**, and the rear surface **40** is substantially perpendicular to the left surface **50** and substantially perpendicular to the right surface **60**, thereby forming a rectangular produce display stand **1**. See FIGS. **4** and **5**.

Each of the divider panels **70** is elongate and extends upward from the top surface **10** of the produce display stand **1**. See FIGS. **2** and **3**. Each divider panel **70** is oriented substantially vertically and spaced apart from each other divider panel **70**. Each divider panel **70** extends laterally from the left surface **50** towards the right surface **60**. In some embodiments, each of the divider panels **70** is oriented substantially parallel to each other divider panel **70**. In yet other embodiment each of the divider panels **70** is substantially the same width as each other divider panel **70** and substantially the same thickness as each other divider panel **70**. In yet other embodiments the top edge **78** of each divider panel **70** is rounded. See FIG. **2**. In the preferred embodiments the divider panels **70** exhibit all of these properties.

In a preferred embodiment the produce display stand **1** comprises four divider panels **70**. See FIGS. **1** and **2**. The front divider panel **72** is located substantially along a front edge of the produce display stand **1** contiguous with the front surface **30**. The rear divider panel **76** is located substantially along a rear edge of the produce display stand **1** contiguous with the rear surface **40**. The two center divider panels **74** are located between the front divider panel **72** and the rear divider panel **76**, with each center divider panel **74** being spaced apart from the front and rear divider panels **72**,**76** and from the other center divider panel **74**. In this embodiment each of the four divider panels **70** extends laterally from the left surface **50** to the right surface **60**, each of the four divider panels **70** is oriented substantially parallel to each other divider panel **70**, each of the four divider panels **70** is substantially the same width as each other divider panel **70**, and each of the four divider panels **70** is substantially the same thickness as each other divider panel **70**. See FIG. **4**. So configured, the front divider panel **72** and the central divider panel **74** located nearest the front divider panel **72** define therebetween the front region **12** of the top surface **10**, the rear divider panel **76** and the central divider panel **74** located nearest the rear divider panel **76** define therebetween the rear region **16** of the top surface **10**, and the two central divider panels **74** define therebetween the central region **14** of the top surface **10**. The front region **12** of the top surface **10** is upwardly inclined from the front divider panel **72** towards the center divider panel **74** located nearest the front divider panel **72** and the rear region **16** of the top surface **10** is upwardly inclined from the rear divider panel **76** towards the center divider panel **74** located nearest the rear divider panel **76**. The central region **14** is oriented substantially horizontally.

In some embodiments the front region **12** of the top surface **10** is larger in area than the rear region **16** of the top surface **10**. See FIG. **4**. In other embodiments the front region **12** of the top surface **10** is larger in area than the central region **14** of the top surface **10**. In yet other embodiments the front region **12** of the top surface **10** is larger in area than either the rear region **16** of the top surface **10** or the central region **14** of the top surface **10**. In yet other embodiments the central region **14** of the top surface **10** is larger in area than either the front region **12** of the top surface **10** or the rear region **16** of the top surface **10**. In yet other embodiments the front region **12** of the top surface **10**, the central region **14** of the top surface **10**, and the rear region **16** of the top surface **10** have substantially the same surface area.

In the preferred embodiments the front region **12** of the top surface **10**, the central region **14** of the top surface **10**, and the rear region **16** of the top surface **10** are each substantially planar. See FIG. **2**. In other embodiments the front region **12** of the top surface **10**, the central region **14** of the top surface **10**, and the rear region **16** of the top surface **10** are each curved smoothly upward.

In other embodiments of the produce display stand **1** there may be more than two central divider panels **76**, defining multiple central regions **14** of the top surface **10**. In such embodiments having an even number of central regions **14**, each of the central regions **14** may be upwardly inclined towards the center of the produce display stand **1**. In such embodiments having an odd number of central regions **14**, the center most central region **14** may be oriented substantially horizontally and each of the remaining central regions **14** may be upwardly inclined towards the center of the produce display stand **1**.

The produce display stand **1** may, in some embodiments, have one or more cavities **22** formed into its bottom surface **20**. See FIGS. **5** and **6**. The cavities **22** can be of any shape and size, and where multiple cavities **22** are used each may have a shape and size different from other cavities **22**. No cavity **22**, however, may penetrate completely through the produce display stand **1**, thereby preserving the integrity of the top surface **10**. The cavities **22** serve to lighted the overall weight of the produce display stand **1**, make it easier to be flexed and even be rolled up, and save on manufacturing materials costs. Where the produce display stand **1** is placed onto an inclined table or counter top, the cavities **22** may be placed over pegs or other appendages extending upwardly from the inclined surface, thereby preventing the produce display stand **1** from sliding off the inclined surface.

The produce display stand **1** may be of varied size. In one embodiment, its dimensions are between forty inches (101.6 cm) and fifty inches (127 cm) wide, as measured from left surface **50** to the right surface **60**, between forty inches (101.6 cm) and fifty-five inches (139.7 cm) deep, as measured from front surface **30** to the rear surface **40**, and between four

inches (40.2 cm) and six inches (15.2 cm) high, as measured from bottom surface **20** to the highest point of the top surface **10**.

The produce display stand **1** may be manufactured using compression molding technology. It is created out of a foam material, such as closed cell pvc foam. A liquid mixture of closed cell foam material is first created. Then the liquid mixture is placed into a mold through an aperture in the mold. The liquid mixture within the mold is heated under pressure until the liquid mixture expands and completely fills mold and solidifies. The resulting solid material is removed from the mold and cooled. During cooling, the solid material expands to its desired final size.

Among the advantages of the produce display stand **1** are the following: The produce display stand **1** holds produce securely and safely while also providing a visually appealing display. The produce display stand's **1** monolithic design simplifies the manufacturing process and increases manufacturing efficiency. The monolithic design, coupled with its foam material construction, eliminates the need for multiple parts and provides a surface substantially impervious to water, mold, bacteria, or other organic compounds. When closed cell foam is used, its properties also provide the benefit that, should a surface of the produce display stand **1** sustain a cut or have a portion broken off, the inner surface of the cut or break will retain the same properties as the unbroken surface. In addition, because the invention is made of a foam material, it provides greater protection against bruising or damage. That is, if a surface of the produce display stand **1** is damaged, the underlying material has the same cushioning properties as the surface. Thus, the produce is protected even if the produce display stand **1** is damaged.

The invention is not limited to what is described in the foregoing embodiments. For example, although a produce display stand **1** is described in detail, the principles described herein may be used in the construction and manufacture of any type of stand for displaying other types of perishable and/or damageable goods.

Other embodiments not specifically set forth herein are also within the scope of the following claims, whereby modifications and variations can be made to the disclosed embodiments of the method of the present invention without departing from the subject or spirit of the invention as defined in the following claims.

What is claimed:

1. A device for displaying produce, comprising:

a monolithic, flexible display member constructed entirely of a foam material, and having a top surface, a bottom surface, a front surface, a rear surface, a left surface, a right surface, and four divider panels;

with the top surface having a central region, a front region, and a rear region, said top surface being adjacent to the front, rear, left, and right surfaces,

said front region of the top surface located between the front surface and the central region and being upwardly inclined from the front surface towards the central region of the top surface,

said rear region of the top surface located between the rear surface and the central region and being upwardly inclined from the rear surface towards the central region of the top surface, and

said central region of the top surface located between the front surface and the rear surface and

being oriented substantially horizontally,

the bottom surface being substantially planar, said bottom surface being adjacent to the front, rear, left, and right surfaces,

the front surface being substantially planar, said front surface being adjacent to left and right surfaces,

the rear surface being substantially planar, said rear surface being adjacent to the left and right surfaces,

the left surface being substantially planar, and

the right surface being substantially planar;

with each of the four divider panels being elongate and extending upward from the top surface, each said divider panel being oriented substantially vertically and spaced apart from each other divider panel, wherein one of the four divider panels is a front divider panel, one of the four divider panels is a rear divider panel, and the remaining two divider panels are center divider panels,

with the front divider panel located substantially along a front edge of the display member contiguous with the front surface,

the rear divider panel located substantially along a rear edge of the display member contiguous with the rear surface, and

the two center divider panels located between the front divider panel and the rear divider panel each center divider panel being spaced apart from the front and rear divider panels and from the other center divider panel,

with each of the four divider panels extending laterally from the left surface to the right surface

each of the four divider panels oriented substantially parallel to each other divider panel,

each of the four divider panels substantially the same width as each other divider panel, and

each of the four divider panels substantially the same thickness as each other divider panel;

with said central region of the top surface located between the two central divider panels,

said front region of the top surface located between the front divider panel and the central divider panel located nearest the front divider panel, and

said rear region of the top surface located between the rear divider panel and the central divider panel located nearest the rear divider panel.

2. The device of claim **1** wherein the front region of the top surface is larger in area than the rear region of the top surface.

3. The device of claim **1** wherein the front region of the top surface is larger in area than the central region of the top surface.

4. The device of claim **1** wherein the front region of the top surface is substantially planar, the central region of the top surface is substantially planar, and the rear region of the top surface is substantially planar.

5. The device of claim **1** wherein the front region of the top surface is curved smoothly upward, the central region of the top surface is curved smoothly upward, and the rear region of the top surface is curved smoothly upward.

6. A device for displaying produce, comprising:

a monolithic, flexible display member constructed entirely of a closed cell foam material, and having a top surface, a bottom surface, a front surface, a rear surface, a left surface, a right surface, a front divider panel, a rear divider panel, a first central divider panel, and a second central divider panel,

with the top surface being adjacent to the front, rear, left, and right surfaces,

the bottom surface being substantially planar and having a plurality of cavities formed into it, said bottom surface being adjacent to the front, rear, left, and right surfaces,

the front surface being substantially planar, said front surface being adjacent to left and right surfaces,

the rear surface being substantially planar, said rear surface being adjacent to the left and right surfaces,

the left surface being substantially planar and substantially perpendicular to the bottom surface, to the front surface, and to the rear surface,

the right surface being substantially planar and substantially perpendicular to the bottom surface, to the front surface, and to the rear surface, and

each of the divider panels is elongate and extends upward from the top surface, each said divider panel being oriented substantially vertically and spaced apart from each other divider panel, each of the four divider panels extends laterally from the left surface to the right surface, each of the four divider panels is oriented substantially parallel to each other divider panel, each of the four divider panels is substantially the same width as each other divider panel, each of the four divider panels is substantially the same thickness as each other divider panel, and each of the four divider panels has a rounded top edge,

with the front divider panel located substantially along a front edge of the display member contiguous with the front surface,

the rear divider panel located substantially along a rear edge of the display member contiguous with the rear surface,

the first central divider panel located between the front divider panel and the second central divider panel, and

the second central divider panel located between the rear divider panel and the first central divider panel,

wherein a front region of the top surface is located between the front divider panel and the first central divider panel, a rear region of the top surface is located between the rear divider panel and the second central divider panel, and a central region of the top surface is located between the two central divider panels,

with the front region of the top surface being substantially planar and upwardly inclined from the front divider panel towards the first center divider panel, the rear region of the top surface being substantially planar and upwardly inclined from the rear divider panel towards the second center divider panel, and the central region being substantially planar and oriented substantially horizontally, and

the front region of the top surface being larger in area than either the rear region of the top surface or the central region of the top surface.

* * * * *